TECHNICAL BOOK REVIEW INDEX

Published monthly, except July and August, by Special Libraries Association. Entered as second-class matter at the Post Office, at Pittsburgh, Pa., under the Act of March 3, 1879. Compiled and edited in the Technology Department, Carnegie Library of Pittsburgh, 4400 Forbes St., Pittsburgh 13, Pa. Subscriptions, renewals, and orders for back numbers should be sent to Special Libraries Association, 31 East Tenth St., New York 3, N. Y. Price $7.50 a year in the United States; $8 elsewhere.

JULIA C. WALLACE, *Editor*

Volume 12 | June, 1946 | Number 6

THE purpose of the Technical Book Review Index is primarily to identify reviews in current scientific, technical, and trade journals; secondarily, when feasible, to quote from these reviews. In the evaluation of scientific and technical books, reviews constitute the best existing source of information. The service of the Technical Book Review Index is thus in the field of evaluation, rather than in competition with existing publications which announce new and forthcoming books, list books by subjects, or supply bibliographic information. Each quotation immediately follows the name of the journal from which it is taken. Obviously, these brief extracts, detached from the context, must not be accepted as conclusive. Except for the correction of obvious errors, the bibliographic information is as given in the reviews. It is, therefore, in many cases incomplete and in some cases probably inaccurate.

★Identifies items previously listed, repeated in this issue with additional reviews

Alexander, Jerome, ed. Colloid chemistry; theoretical and applied. v.6. 1215p. c1946. Reinhold, New York, $20.

Rayon textile monthly, April 1946, p.110. ⅝ col.

"Deals with general principles and specific industries as part I and with synthetic polymers and plastics as part II, more than 71 papers by selected international contributors. These papers fall into 2 groups; 38 deal with specific industries or industrial operations; 32 center on synthetic resins and plastics. A general article on nuclear fission and atomic energy is also included . . . An excellent author's index and a splendid subject index . . . Has all the earmarks of a masterpiece by a masterful editor. Every textile research man should have this book for ready reference."

Allan, D. How to write for television. 244p. 1946. Dutton, New York, $2.75.

Televiser, March-April 1946, p.37. ¾ col.

"Not a handbook for the novice. Rather it points up various aspects of the visual broadcast medium necessary for an understanding of the new scriptwriting formula. Of particular value are his chapters on 'Dialogue,' 'Sample Scripts,' and 'Adaptation.' Chapter XIV, 'Adaptation,' is recommended for study . . . One of the best chapters . . . Chapter IX, 'Television Scenery,' was contributed by Edna Gamble, scenic artist, who has done commendable work at WABD-DuMont."

Allen, Cecil J. Titled trains of Great Britain. 128p. 1946. I. Allan, Middlesex, England, 6s. (ABC locomotive series.)

Model engineer, April 11, 1946, p.372. ¼ col.

"It would be scarcely possible to find anyone better qualified than Mr. Cecil J. Allen to deal with such a subject as trains; he has written about them for nearly forty years and has travelled in them for something like 2,000,000 miles. It may come as a surprise to many readers that no fewer than seventy British trains are known by distinctive names, or titles; yet that is the number described individually in this entertaining little book . . . Numerous photographs, the work of several well-known experts, are included, adding much to the interest and attractiveness of the book. The descriptions are, of course, authoritative, historical and, sometimes, anecdotal in character; but all are such as to arouse the enthusiasm of anyone who loves our trains."

Railway gazette, May 3, 1946, p.482. ½ col.

★Altieri, V. J. Gas analysis and testing of gaseous materials. 560p. 1945. Technical Section, American Gas Assoc., 420 Lexington Ave., New York, $7.50 (Members, $5).

American gas journal, Dec. 1945, p.47. ⅘ col.

"New subjects constitute about three-fourths of the text . . . [Contains] practical information for the chemists, engineers and technicians of the industry . . . The table of contents discloses chapters on kinds of materials, processes, properties and compositions of gases, measurement of quantity and flow, selection of method of sampling, operations and calculations of gas analyses. Other chapters are devoted to specific methods, tests and facilities showing usefulness of gas analyses and testing of materials and processes in the gas phase . . . Profusely illustrated and . . . thoroughly indexed."

Chemist, Feb. 1946, p.74. 1 col.

"The second volume in the series of revisions of the *Gas Chemists' Handbook* (first volume: *Gas Chemists' Book of Standards for Light Oils and Light Oil Products*) . . . The laboratory gas-analyzing technician will find the control methods concise yet sufficiently detailed for him to follow. The chemist, physicist, and engineer will welcome the treatment of the theory under-

lying gas analysis; the interpretation of results obtained through the methods advocated; the 197-item bibliography and the fifty-eight time-saving tables of data. The executive will also find hints on safety and accident prevention." *A. S.*

Amiss, John M., & Sherman, Esther. New careers in industry. 227p. 1946. Whittlesey House, New York, $2.50.

Chemical and engineering news, April 25, 1946, p.1135. 1 col.

"The authors have presented considerable information about various careers in the automotive industry which should be of interest to young people and older people who are young in spirit. Opportunities in the automotive industry are described in 24 separate chapters in which the relationship of typical crafts to the entire automotive industry is shown. These descriptions are often accompanied by pictures and analyses showing the duties, working conditions, wages, and qualifications required in this job. This primer on careers in industry has been written by two industrial educators . . . who by narration, illustration, and anecdotes have described machine operators, toolmakers, time study men, accountants, and other industrial workers in an interesting style which can be readily understood by most young people. The authors have devoted much more attention to the die-maker, pattern-maker, and mechanic than to the chemist." *Raymond B. Seymour.*

Factory management and maintenance, May 1946, p.290. 11 l.

"An outline of specifications, duties, working conditions, wages, and qualifications for jobs in industry and business, including machine operation, machinist, tool-, die- or pattern-maker, inspector, supervisor, master mechanic, engineer, as well as sales, export work, accounting, personnel, and labor relations. Tells how to plan for effective educational training, and how to evaluate personal qualifications."

Printers' ink, April 19, 1946, p.62. ⅛ col.

"Mixes a little of the inspirational (notable particularly in the illustrations) with its very well-written and well-organized information on jobs, which is broken down into 24 chapters in three main divisions, one having to do with machine operation, repair, rebuilding and inspection, one with supervision, safety, time-study, planning purchasing, engineering and research, and one with specialists, including selling, accounting, education, personnel and labor relations. Unlike most textbooks, this little volume has a distinctly literary quality."

Baillif, Ralph N., & Kimmel, D. L. Structure and function of the human body. 328p. 1945. Lippincott, Philadelphia, $3.

Journal of the American Dietetic Association, April 1946, p.344. ⅛ col.

"'A concise, carefully organized presentation' emphasizing the relationship of structure and function of the body and written in simple language, the authors using a minimum of technical and scientific words and phrases . . . Numerous excellent illustrations will serve to fix the facts as presented in the mind of the student, and simplify his orientation to the sciences relating to the human body."

Beet, Ernest Agar. Elementary astronomy. 110p. 1945. Cambridge Univ. Press, London, 8s. 6d.

Discovery, March 1946, p.96. ⅖ col.

"Covers the syllabus in elementary astronomy suggested by the Science Masters' Association and does what it sets out to do remarkably well. The basic stuff is all here—the elementary properties of light; the earth and its rotation and orbital motion; a short description of the constellations; the measurements of time; a little about navigation; the planets; and so on. In fact what Mr. Beet has done is to lay the foundations of astronomy from the very beginning, and when he has finished the job, there they all are—straight and true, easy to see, with no jerry-building. At the end of each chapter there are suggestions for observations of a very elementary kind which the reader can carry out for himself; at the end of the book there are lists of questions and problems, and a bibliography. The line illustrations are good and so are the half-tone plates, including an excellent one of a model of the 200-inch telescope." *David S. Evans.*

Bell, E. T. Development of mathematics. Ed.2. 637p. 1945. McGraw, New York, $5.

Mines magazine, March 1946, p.124. ⅛ col.

"A well known and widely used book, in which the author tells with freshness and vigor the absorbing story of the part played by mathematics in the evolution of civilization, from about 4000 B. C. to the present day . . . Clearly describes the chief principles, methods and theories of mathematics which have survived, and presents the greater trends in pure and applied mathematics through major episodes in each period, with explanations of the technicalities . . . Contains new material concerned with trends and developments in modern mathematics."

Quarterly of applied mathematics, April 1946, p.104. 11 l.

"Contains about fifty pages of new material. Listed in the order in which they occur in the book, the major additions deal with Moslem algebra, the development of symbolism, lattice theory, cubic surfaces, Levi-Civita's parallel displacement, definition of lengths, areas and volumes, the transition from intuitive to unintuitive thinking in modern mathematics, the development of mathematics in times of war, algebra of relations and consistency proofs. The index, too, has been considerably enlarged." *S. Prager.*

Bisch, Louis E. Your nerves; how to release emotional tensions. 310p. 1945. W. Funk, New York, $2.50.

Quarterly review of biology, March 1946, p.121. 1 col.

"Another one of those books written for the layman, and thoroughly misleading it is, as the following excerpt from the preface will indicate: 'Nervousness, in whatever form, actually need not be. The average person can cure himself or herself of a case of nerves if only he or she knows how. This book—I feel confident—will accomplish just that.' There are 302 pages in this book, and it would be impossible to write that much, out of any experience at all, without saying some perfectly true and sensible things. Yet there is hardly a page on which there is not some actual misstatement, or the presentation of a personal prejudice, or a presentation of the material in such a way as to make it appear that the overcoming of neurotic difficulties is relatively

simple . . . In reading this book even in the most tolerant mood, one cannot help but feel that the cases so briefly presented are of the most minor sort of disturbances . . . The book is already in the second printing and one may expect many more, no doubt, but numerous printings will not establish this as a scientifically sound volume." *Wendell Muncie.*

Braley, E. Lindsay. Brickwork. Pitman, London, 45s. net.

Surveyor, April 12, 1946, p.286. ⅝ col.

"No better book than this could be consulted by the bricklayer apprentice or improver who wishes to rise high in the knowledge of his craft. The author is a practical man as well as an experienced teacher. His drawings are clear and workmanlike. The written matter is concise, accurate, and always interesting. Much attention is given to the various kinds of brick in use, and to the methods of their manufacture. In the less expensive books this information is either much condensed or omitted altogether; but here we have it fully treated, both by description and illustration . . . An excellent work." *C. W. C.*

Brinkley, Russ. Your post-war place in aviation. 96p. 1946. Aviation Press, 113 W. 42nd St., New York, 50c.

American aviation, May 1, 1946, p.8. ⅓ col.

"In the hands of a less skillful author, a book by this title and sold as this is, primarily on newsstands, could cause plenty of grief for aviation companies which have relatively few jobs available for the multitude of applicants available. But Russ Brinkley's long record in various phases of aviation have stood him in good stead . . . Has 42 chapters on just about everything from airlines and manufacturing to flying clubs, fly-it-yourself service, merchandising and airports." *W. W. P.*

Flying, June 1946, p.66. 9 l.

"Designed for the ex-service man, high school student and CAP cadet, this work outlines the various vocational opportunities and limitations of aviation. A thorough research and reporting job, it traces the development of the aviation industry and lists the literature that is available for a more detailed study of any of its own or its related activities."

★Brody, Samuel. Bioenergetics and growth; with special reference to the efficiency complex in domestic animals. 1023p. 1945. Reinhold, New York, $8.50.

American scientist, April 1946, p.267. 2⅛ col.

"Few biologists will be inclined to read this imposing volume from cover to cover, but most will find in it a mine of useful material. On the book shelves of mammalian physiologists it will long occupy an important place. In this 'age of the machine' when so much of our attention is directed to problems of mechanics and of power, we should not forget that domestic animals, those remarkable organic machines upon which man has depended so long and for so many things, are still an essential part of his world and can never be replaced by the most cleverly contrived synthetic mechanisms. Furthermore, man himself is so closely akin to them in structure and function that whatever we can learn of their secrets will be applicable to the study of that still more remarkable animal which they so well have served." *Edmund W. Sinnott.*

Chemical and engineering news, April 25, 1946, p.1132. ⅝ col.

"Covers a tremendous field . . . Brody seems to have packed into his book a record of everything he and his co-workers have done and read. The book is proof of the author's great capacity to collect data and ideas. Brody is less successful in classifying and organizing the collection, and he seems rather deficient in the ability to weed out unimportant or dubious material . . . Some of Brody's terminology lacks precision . . . Despite its defects, Brody's book is a great compilation of data and ideas and a valuable key to a vast amount of literature." *Max Kleiber.*

Journal of chemical education, April 1946, p.208. ½ col.

"The author has shown himself to have complete command of the vast amount of varied material . . . Should be an indispensable reference work for all who are interested in the general problems of biology as well as in its applications to agriculture." *J. Walter Wilson.*

Journal of physical chemistry, March 1946, p.168. ⅔ p.

" 'The primary purpose of this book is to present quantitative analyses of metabolic processes of the organism *as a whole* in relation to the energetic efficiency of agriculturally productive transformations.' To achieve this end Professor Brody has written a compilation and appraisal of the vast experimental data on energy relations in growth and animal production and has very capably presented new interpretations . . . There has been great need for a summary and interpretation of the experimental results on the energy relations in nutrition, growth, development, and productivity of animals. This monumental work fills that need and will become a standard reference in these and related fields." *Henry A. Lardy.*

Quarterly review of biology, March 1946, p.97. 2½ col.

"Typographical errors are few. Many new data and much published material are made conveniently available in this encyclopedic volume, which is documented with about 2000 footnote references. Numerical data are given in appendices . . . to many of the chapters, thus inviting the skeptical reader to make his own analyses. The hundreds of analytical graphs and illustrations are excellent; few are overcrowded. Many opportunities for research are proposed. Comprehensive author and subject indexes are provided. Some readers may find the quick changes from exacting science to philosophical speculation delightful; some will find them confusing, or annoying . . . Specialists will disagree vigorously with some of Brody's conclusions, but in any case his book will stimulate thought and become a useful and valuable addition to our bookshelves." *Oscar W. Richards.*

Tropical agriculture, Dec. 1945, p.229. 1⅘ col.

"Should be of particular value to those concerned with the development of the tropical animal industry. Not only the sections dealing with the treatment of experimental data but also those concerned with the effect of the environment on energy conversions could be of great assistance." *John Duckworth.*

Burns Morton, F. J. New foremanship. Ed.2, revised. 316p. 1946. Chapman & H., London, 15s. net.

Mechanical world, April 12, 1946, p.405. ⅝ col.

"Mr. Burns Morton has made a study of all aspects of American and British foremanship and in this work the reader is given the benefit of his wide reading and sound industrial experience . . . Written primarily for those in control of industry—directors, managers and technicians—to convince them of what changes in foremanship are necessary as a result of changed methods of management, improved industrial techniques and altered human relationships within the factory. Although the appeal is principally to management, all thinking foremen will read much that will help them to do their job better, and the style and width of treatment make the book attractive to others interested in industrial management." *M. L. Y.*

South African mining and engineering journal, March 30, 1946, p.99. ½ col.

"British and American methods in regard to the development and training of foremen are compared . . . Claims to be written primarily for directors, managers, technicians and those thinking foremen who believe in the possibilities of their job . . . Can be recommended to all executives wishful to keep themselves and their business activities in line with the times."

Bush, Vannevar. Endless horizons. 182p. 1946. Public Affairs Press, 2153 Florida Ave., Washington, D. C., $2.50.

Electrical news and engineering, April 15, 1946, p.66. ½ col.

"A few well-represented considerations of the problems and opportunities confronting science today are presented . . . The need for patent reforms is discussed intelligently with much factual background. The good resulting from the U.S. (and Canada's) patent system is acknowledged and the defects are pointed out. The three major defects are: Too many patents issued with a low standard of invention; excess cost and delay in litigation of patents and difficulty met by courts in handling scientific or technical questions without complete nonpartisan assistance. Other chapters include: The renewal of scientific talent; research on military problems; the teamwork of technicians; the qualities of a profession and science for world service."

Chapel, Charles E. Aircraft electricity for the mechanic. 477p. 1946. Coward-McCann, New York, $5.

Air transport, May 1946, p.75. ¼ col.

"A textbook for the mechanic written in simple terms, explaining the problems peculiar to aircraft electricity and their solutions, suitable for home study and secondary vocational school students, but comprehensive enough to command the respect of engineers and aid in passing examinations for licenses as aircraft mechanics and aircraft engine mechanics . . . This book is the manuscript . . . [the author] used in teaching aircraft electrical and ignition systems to officers and enlisted men of the Army, Navy and Marine Corps. Many good drawings are included, also, excellent handling of fundamental formulas."

American aviation, May 1, 1946, p.8. ⅛ col.

"Mr. Chapel . . . explains . . . in clear and simple language the electrical fundamentals and their applications and use . . . Covers the fundamentals of electricity, direct-current circuits, the aircraft storage battery, condensers, generators, motors, ignition systems, engine starting systems and many other subjects. There are numerous charts, diagrams and pictures to illustrate his points."

Aviation, April 1946, p.146, 149. ⅛ col.

"Lieut. Chapel initially explains fundamental principles of operation, maintenance, and inspection in the aircraft-electric fields. He then emphasizes the troubles most frequently encountered in actual operation, the various possible causes of these troubles and the symptoms by which they can be recognized, and finally he details the necessary corrections . . . Illustrated with many charts, diagrams, and pictures. Typical examination questions, with keys to correct answers, are found at the end of each chapter."

Aviation maintenance & operations, May 1946, p.105. ⅓ col.

"Will meet the need for a ready reference to all problems and questions which arise in the training of mechanics and pilots, and . . . serves as a practical guide and reference work to those who already have an aircraft job, whether it is on the ground or in the air . . . Written in simple language, and . . . explains clearly exactly what the mechanic needs to know about aircraft electrical systems and ignition without wading through complicated theories of interest only to engineers. Typical examination questions, with keys to the correct answers, are placed at the end of each chapter so that the reader may check his own progress and prepare for a useful and profitable career."

Chenault, Richard S. Advertising layout; the projection of an idea. 96p. 1946. Heck-Cattell, New York, $5.

Photo-engravers bulletin, March 1946, p.50. 1⅔ col.

"Since there are hundreds of explicit details inherent in each phase of layout, Mr. Chenault restricted his text to essentials. As a guide to further specialized study, a list of supplementary reading is given in the appendix. Through this, the serious student can develop his creative imagination to a high level. The illustrations are designed by five of the most successful advertising men in America. Many of them are the original layouts of famous advertisements, reproduced directly from the visualizer's drawing board. Together with the thorough yet concise text, they form a comprehensive exposition of the conception and technique of advertising layout. The book is heavily illustrated in black and white and color, and in our opinion is not only the latest but the best treatise on the subject."

Clark, William H. Farms and farmers; the story of American agriculture. 346p. 1945. L. C. Page & Co., 53 Beacon St., Boston, $3.75. (American cavalcade series.)

Chemurgic digest, March 15, 1946, p.98. ¢ l.

"[Presents] the dramatic history of the American farmer from primitive to scientific farming. As a history it is instructive and entertaining, vividly written, and it is the kind of book that everyone can read with pleasure and profit." *E. L. L.*

Science education, March 1946, p.109. ⅔ col.

"The fascinating story of American farming has never been adequately told. *Farms and Farmers* as the story of American agriculture attempts to do this and does it remarkably well. It is a story that has long needed telling . . . A most interesting book to read—a fine supplementary book for the science pupil and teacher (especially biology and agriculture) as well as the layman. There are many illus-

trations from photographs, drawings and old prints, thorough documentation, chronology, and bibliography. Thus the work is based upon much research and involved the elimination of much interesting material." *C. M. P.*

Cooper, Herbert J., ed. Scientific instruments. 294p. 1946. Hutchinson's Scientific and Technical Publications, London, 25s. net.

Flight, March 28, 1946, p.326. ¼ col.

"An excellent attempt to cover the generalities of instrumentation and is divided into five sections, *viz.*: I, Optical Instruments; II, Measuring Instruments; III, Navigational and Surveying Instruments; IV, Liquid Testing; and V, Miscellaneous." *C. B. B.-W.*

Journal of scientific instruments, April 1946, p.87. ⅛ col.

"Intended for the 'inquiring intelligent layman' and the specialist inquiring into a field with which he is not familiar . . . Makes no pretence at giving all the information requisite for actual use of the instruments, but the information is descriptive, so that the complete stranger to any instrument may form an idea of its value and function. The selection of instruments to be described is admitted to be arbitrary, but it is hoped that those in which there is most general interest have been included . . . Fully illustrated, largely from the actual makers' catalogues. Its five sections are: Optical Instruments, Measuring Instruments, Navigational and Surveying Instruments, Liquid Testing, and Miscellaneous."

Journal of the Royal Aeronautical Society, April 1946, p.294. ½ p.

"This survey of the instruments at present used by the many sides of science has been compiled by a large number of authors, each an expert on a particular group of instruments. As a result each of the various sections is equally informative, an ideal which could not have been attained if one author had produced the whole book. The method adopted by each author is to give a description of each instrument and the scientific basis of its working, together with brief notes on its use. Illustrations are used to good effect and whenever necessary a short history of the type of instrument is given to assist the reader in the understanding of the theory. One point which will be greeted with great joy by many is that the authors have only used the minimum amount of mathematics, and that which is used is of an extremely elementary nature. No attempt has been made to give complete and detailed information required for the use of each instrument . . . but a reader who absorbs all the information will feel completely 'in the picture' when he sees instruments which he has never met in practice."

Transactions of the Institute of Marine Engineers, April 1946, p.56. ⅓ col.

Daniel, Howard, & Belle, Minnie. Australia; the new customer. 369p. 1946. Ronald, New York, $4.50.

Advertising & selling, April 1946, p.146. ⅔ col.

"A . . . book covering the Australian market, the land and the people, political system, living standards, foreign trade, ports and port facilities and marketing and advertising . . . Also reviews most of the industries of the country such as pastoral, agricultural, mining, manufacturing, iron and steel, machinery, automotive, aircraft, electrical and radio, shipbuilding, chemical, munitions, textile and clothing, food, amusement, public utilities, communications, transportation, newspapers and publishing."

Industrial marketing, May 1946, p.154. ⅓ col.

"The American business man, interested in the export of American goods to Australia, will find this book an economic and commercial guide. The subject matter describes background information necessary to understand the market in Australia; detailed information on primary and secondary industries, as well as communication, transportation, public utilities and other facilities with particular interest on the future outlook and opportunity for American business; a summary which points up the postwar developments already planned for in Australia. The appendix gives detailed market research data of the capital cities, territories of Australia, and sources of commercial intelligence. There are also numerous maps showing railroads and terminals, air routes, coastal shipping routes, highways, physical features, land-use regions and locations of plants manufacturing various commodities, with 34 accompanying tables of statistics."

Davidson, Martin, ed. The gyroscope and its applications. 256p. 1946. Hutchinson's Scientific & Technical Publications, London, 21s. net.

Electrical review, April 12, 1946, p.575. ⅔ col.

"Should fill a much felt want . . . The editor apparently thought that no one person could deal with all sides of the subject, so that a mathematician was enlisted for the theoretical analysis at the beginning, and two technical men for the description of the actual pieces of apparatus. This gives a somewhat disjointed character to the work. On changing over to the technicians a slightly different language is used and they make use of expressions belonging to the trade . . . So useful a book would have been improved by having an index." *W. C. A.*

Flight, March 28, 1946, p.326. ⅓ col.

"In this excellent book is packed a greater overall fund of data on the gyroscope and gyroscopic devices than can probably be found between any other two covers yet produced. Dr. Davidson suggests in the introduction that the book should be regarded as but a reliable *introduction* and not as an exhaustive treatise. Certainly, however, the content matter is exhaustive in the fields covered, and more than enough data is [sic] supplied to satisfy anyone other than the absolute specialist who might require a treatise on a single aspect of application or theory . . . Should have a place in every technical library and on the bookshelf of every technician whose field embraces gyroscopics."

Journal of scientific instruments, April 1946, p.87. S l.

"Divided into three sections: General Theory, by the Editor; Marine Applications, by G. C. Saul; and Aeronautical Applications, by J. A. Wells and A. P. Glenny. The purpose of the book is to explain the theory of the gyroscope and to describe its practical applications in a manner understandable by all with any interest in the subject. The scope embraces all aspects that are not barred by security reasons from a book written in war-time . . . Copiously illustrated."

Journal of the Royal Aeronautical Society, April 1946, p.293. ¾ p.

"There are many applications of the gyroscope which, under war-time secrecy, have not yet been released, and it is hoped that the authors will be able to include these in a future edition. Nevertheless this is an excellent book for the aircraft designer to have on his shelves, for it enables him to understand the full value of the use of the gyroscope to obtain automatic control."

Transactions of the Institute of Marine Engineers, April 1946, p.57. 1 col.

Dunlap, Orrin E., jr. Radar; what radar is and how it works. 208p. 1946. Harper, New York, $2.50.

Acro digest, April 1946, p.67. 7 l.

"Surely one of the best of the popular accounts of the more sensational recent developments in radio. The author, former radio editor of the New York *Times*, belongs to the executive staff of RCA."

American aviation, May 15, 1946, p.S. ½ col.

"Orrin Dunlap . . . has produced what is probably the best book on radar for the average non-technical reader . . . Reviews some of the recent developmental work carried on by the Naval Research Laboratory, the Army Signal Laboratory, Massachusetts Institute of Technology, Radio Corporation of America . . ., Philco, Raytheon Manufacturing Co., General Electric, Westinghouse, and Bell Telephone Laboratories. British military and scientific institutions are given overall credit but the book unfortunately does not give the same individual mention accorded American workers . . . Reveals that effective radar operating sets were in use by 1935."

Aviation, April 1946, p.146. 8 l.

"Popularly written account of radar, tracing the history of this science from the early reflected-wave experiments of Hertz and Marconi, through the application of the radio echo to so-called push-button warfare. Operation of radar is described in its ramifications, and the volume closes with a cogent discussion of the future of radar."

Electronic industries, April 1946, p.150. ¼ col.

"This aim here is to give a popular version of radar so that the layman may appreciate its significance and realize the tremendous importance of science in the destiny of nations and of civilization. The text is a dramatic rather than technical representation of the achievement of radar . . . Addressed to the layman and radio listener and reads like fiction. Performance, historical development and the part this comparatively new engineering branch played in winning World War II is described by numerous quotations of technical and military men. Future possibilities are pointed out."

Radio, April 1946, p.51. ½ col.

"A well-written popularized treatment of radar, for persons who wish to know 'what goes on' without becoming involved in waves, circuits, and electrons . . . Accomplishes what it sets out to do . . . Can be recommended to the large group of executives and planners who wish to acquire an authentic knowledge of the new technique."

Radio news, May 1946, p.102. ¼ col.

"A popularly written book on the wartime miracle of radar, a book which can be read and enjoyed by everyone interested in the beginnings of this useful electronic application . . . The development of our wartime radar equipment is as thrilling a story as most novels and the achievements of the allied scientists make good reading . . . Illustrated with photographs and sketches which will help the lay reader visualize radar . . . Recommended for all readers regardless of technical background and training."

Scientific American, May 1946, p.238. 10 l.

"Simple, easy-to-understand details of the most publicized phase of wartime radio developments are here given in an easy flowing style, completely free from technicalities and mathematics. Despite the over-simplification of the text, the story is a gripping one; it may well be read as an exciting piece of fiction, yet is fundamentally accurate in detail." *A. P. P.*

Dupuy, Judy. Television show business. 246p. 1945. General Electric Co., Schenectady, N. Y., $2.50.

Radio, April 1946, p.19, 51. ¼ col.

"Miss Dupuy has gone very thoroughly into methods of televising dramatic productions, sports, various dance techniques, special forums and speakers, and those theater features which present special problems of the television producer . . . Television people with limited production budgets, laymen, and those with experience in this new field will find useful information which will eliminate many of the trial-and-error methods from production of television features . . . Well illustrated, and . . . provided with a good index."

Radio craft, May 1946, p.587. ½ col.

"Probably the first actual television production text book to be offered to the general public is this manual . . . Strictly, as the title implies, a non-technical manual, though the reader will unconsciously pick up a certain amount of technical lingo along with the material on 'How to become a television director or producer in 36 easy lessons . . . An up-to-date glossary of television terms and slanguage (dictionary style) completes lesson 37 . . . The continuity is excellent and very nearly meets the requirements of a perfect book: To make the reader forget he is reading and feel that he is actually living through each chapter with the author. Were it not for the superabundant presence of General Electric's television station call letters (WRGB) this manual would be 99 percent perfect. As it is, the slight marring of enjoyment by this repetitious redundancy is more than offset by the excellent photographs and entertaining story on the lesser-known phase of television; the story behind the 'ikelights'." *E. A. W.*

Televiser, March-April 1946, p.37. 1⅓ col. (Reprinted from *Tide*.)

"Television's program directors and advertisers are learning the hard way what the new medium can do well, where its limitations lie; as telecasters well know, today's trial & error experiences will be tomorrow's guide-posts. Five years of such experience are summarized by Judy Dupuy, former radio editor of the New York newspaper, *PM*, and present editor of *Televiser* magazine in *Television Show Business*, a 250-page handbook, outlining in detail what General Electric Company's station, WRGB, at Schenectady, has learned about television. The G-E station has pretty well run the gamut of programs, experimenting with almost everything from boxing to ballet, including variety shows, religious programs, interviews, fashions, forums, drama, quizzes and many other types.

Author Dupuy tells which were successful, which were not, and, more important, why."

Edwal Laboratories, Incorporated. Modern developing methods. Ed.3, revised and enlarged. 138p. 1945. The Laboratories, 732 S. Federal St., Chicago, 50c.

Chemist, March 1946, p.113. ⅔ col.

"This comprehensive handbook of . . . the latest methods of developing prints and fine grain photographic negatives is a welcome addition to the desk of the research man who must accurately record his observations via photography as well as to the amateur photographer . . . Contains the necessary concise yet clear manipulative directions; many valuable tables of developing times, film speeds, light meter characteristics, chemical equivalents of commercial developers, formulae, conversion tables, and similar data not elsewhere readily available. The extraordinarily fine cuts used to illustrate the text put this book in a class by itself. It is short, concise, readable and to the point." *A. S.*

Egloff, Gustav. Physical constants of hydrocarbons. v.3. 661p. c1946. Reinhold, New York, $15. (American Chemical Society. Monograph series, no.78.)

Rayon textile monthly, April 1946, p.110. ½ col.

"Deals with mononuclear aromatic hydrocarbons, which are found in abundance in the world, such as coaltar and petroleum . . . A collation of all melting point, boiling point, density and refractive index data available before May 1944; in other words, the physical constants of these mononuclear aromatic hydrocarbons . . . Highly scientific and only of interest to hydrocarbon chemists, oil experts and chemists. Valuable compounds, dyes, extracts are obtained from these compounds, which are used in our dye manufacturing industry. Therefore, it will have considerable value to dye and color research men."

Fisher, Douglas A. Steel in the war. 164p. 1946. United States Steel Corp., 71 Broadway, New York, gratis.

Blast furnace and steel plant, April 1946, p.65. 1⅛ col.

"The war role [sic] of a basic American industry and its largest producer is revealed for the first time . . . Assembles for the first time facts and figures which measure the importance to the national security of this basic metal . . . Generously illustrated . . . Traces the development of many new steels and new uses of steel which were invaluable to our armed forces and our Allies, and are now available for postwar needs. The story of the steel helmet, the landing mat for planes, the perfection of the high-pressure steam turbine to drive ships faster and farther on less fuel, the free-fall cargo package for supplying front line troops by air, the heat-resisting steel tubes for jet propulsion planes, etc."

Electrical manufacturing, April 1946, p.280, 282. 8 l.

"A distinguished presentation of its record in the war and of the record of the steel industry as a whole in the war has been made available by the United States Steel Corp. in the form of a profusely illustrated . . . book . . . Gives a vivid portrayal of the importance of steel not only in wartime but in peace. The development of new production methods is stressed, including prefabrication of ship sections, new welding techniques and other important factors in wartime achievement."

Food industries, May 1946, p.199. ¼ col.

"A beautifully printed and handsomely illustrated story of the steel industry's performance during the war . . . Traces the development of many new steels that will interest the food engineer. The perfection, for instance, of heat resisting steel tubes, the free-fall cargo package and the high pressure steam turbine, are among the many that will lend themselves to peacetime application. For those who are keeping an eye on the opportunities presented by war impelled accomplishments in other industries, this book can be highly useful."

Mining and metallurgy, May 1946, p.278. 12 l.

"The quantity of high quality steel needed and the demand for a large variety of special steels requiring the conservative use of alloys are set forth with the help of hundreds of pictures . . . An excellent record of what private industry can do in a democracy at war."

Oil weekly, March 18, 1946, p.86. ⅓ col.

"A now-it-can-be-told story of an industrial accomplishment which contributed to victory in World War II . . . Assembles facts and figures which measure the importance to the national security of this basic metal . . . Leaves the reader with an impression of industrial energy that, often taken for granted, is nontheless [sic] a prime factor in our national development . . . Generously illustrated and has an alphabetical index."

Screw machine engineering, May 1946, p.81. 2 col. including an illustration.

"The story of the steel helmet, the landing mat for planes, the perfection of the high-pressure steam turbine to drive ships faster and further on less fuel, the free-fall cargo package for supplying front line troops by air, the heat-resisting steel tubes for jet propulsion planes—these and scores of other production miracles are described. The development of new production methods—prefabrication of ships sections, first introduced in a U. S. Steel shipyard, the new bomb-spinning process which speeded output of heavy bombs, new welding techniques which provided greater protection for the men who manned our tanks—is recited in this diary of war production."

Steel processing, April 1946, p.228. ⅝ col.

Fixel, Rowland W. Law of aviation. Ed.2. 396p. 1945. Michie Co., Charlottesville, Va., $7.50.

Flying, May 1946, p.76. ¼ col.

"This second edition brings the first, of 1927, up to date by enumerating and partially identifying 382 aviation law problems within a compass of 290 pages of text. Four appendices, dealing with current aviation agreements, a table of cases, and an index complete the volume . . . Will be of interest to the layman who wishes to know something of the kind of legal problem which aviation has developed and to the beginning lawyer who wishes to know something of the field. Subjects dealt with by the author include Historical Background, Sovereignty in Air Space, Relation to International Law, Aerial Warfare, Rules of the Air, Airports, Seadromes, Right to Fly over Another's Land, Criminal Law, Insurance, Workmen's Compensation, Taxation, and Civil Aeronautics Act of 1938." *Fred D. Fagg, jr.*

Fleck, Harry Ronald. Plastics; scientific and technological. Ed.2. 361p. 1945. Temple Press, London, 30s. net.

India-rubber journal, March 23, 1946, p.3. ½ col.

"The author makes the point that the necessity for a second edition of the book, so soon after its first appearance, indicates the need for a concise textbook on the chemistry and technology of plastics and the speed with which the industry is growing. He has certainly done well in his efforts to fill the need for such a textbook and has, at the same time, taken the opportunity to include much new material. At the beginning there is a generous and helpful chapter index and a full list of illustrations, while at the end there are several appendices, a name index and a subject index."

Journal of scientific instruments, April 1946, p.86. ⅛ col.

"Intended as a concise text-book of the chemistry and technology of plastics; much new material has been included in the text and the index has been revised."

Fosbroke, Gerald E. Common-sense business leadership; a manual of human relations. 177p. 1946. Essential Bks., 270 Madison Ave., New York, $2.50.

Modern industry, May 15, 1946, p.100, 102. ¼ col.

"G. E. Fosbroke offers some truly common sense suggestions on how to handle your job. He proposes these check-traits for top-flight executives, white-collar executives, foremen, personnel managers, safety engineers, and sales executives: ability to teach and lead; manner; self-confidence; judgment; acceptance of responsibility; budgeting of time and effort; impersonal attitude; alertness; observation; physical dominance; cooperation; and health."

Printers' ink, April 12, 1946, p.71. 12 l.

"Based on the author's daily experience for nine months with 'executives, sub-executives, foremen, sub-foremen and plant and shop workers'—apparently in The Globe Oil & Refining Co., St. Paul. 'Psychology and physiology, though the basis of all behavior, have in a strict sense been intentionally avoided in this book,' says the author stressing the word common-sense in his title. Good short chapters—two out of 11—are on sales executives and the building of man power."

Frazer, W. M., & Stallybrass, C. O. Textbook of public health. Ed.11. 571p. 1946. Livingstone, Edinburgh, 25s. net.

Journal of the Royal Sanitary Institute, April 1946, p.142. ⅓ p.

"The eleventh edition of this well-known work on public health, represents the combined experience of a large public health department . . . Thoroughly brought up to date and incorporates the latest advances in medicine and public health since the last edition six years ago . . . Very readable and . . . written in easy style . . . Contains many useful illustrations and diagrams, and covers fully the requirements of the examining bodies for the Certificate and Diploma in Public Health under the new Rules of the General Medical Council . . . Should also prove of service to undergraduates reading for the M.B. Examination and also for the Diploma of Tropical Medicine and Hygiene. There is an excellent index, invaluable for those who will want to keep the book as a work of reference."

Freeman, William. Water supply and drainage. 40p. 1946. Pitman, London, 1s. 6d. (Engineering in everyday life series.)

Electrician, April 26, 1946, p.1113. ¼ col.

"Imparts a touch of romance to what is commonly regarded by the man-in-the-street as a dull, though vital, subject. He modestly claims that it is no more than a simple summary of twin fundamental amenities, but what he has managed to compress in such small space should appeal strongly to the ordinary man, who rarely gives a thought to the two public services on which his health is largely dependent. Beginning with the rainfall in the British Isles, Mr. Freeman traces the development of modern water supply and drainage systems from primitive beginnings."

Mechanical world, April 26, 1946, p.464. ¾ col.

"Water . . . is the subject of this delightful little book. Condensed, but by no means compressed, into some forty pages, is to be found a wealth of information providing reading more like a romance than anything approaching a technical treatise. Written at the suggestion of the Institution of Civil Engineers (who have assisted with its compilation) . . . Altogether, we thoroughly enjoyed reading this delightful little book and the gentle humour with which it is occasionally besprinkled added to our enjoyment as a small measure of flavouring added to an already palatable draught." *G. H. P.*

Fulton, John F. See Howell, William H.

Gabor, D. The electron microscope. 104p. Hulton Press, Ltd., 43 Shoe Lane, London, E.C.4, 4s. 6d. net.

Journal of scientific instruments, April 1946, p.86. ¼ col.

"An amplified version of a lecture, delivered in 1943 before the Physics Society of the University of Cambridge. In its present form it is intended to be both an introduction to the electron microscope and a critical contribution to its theory. It is hoped that the fundamentals of electron optics, which are briefly explained in chapters 2 and 3, will enable the basic operation of the instruments described in chapters 4-11 to be understood. The last chapters, 12-14, are of a more advanced character, and are addressed in the first place to physicists and electronic engineers. An appendix on the diffraction theory of the microscope has been added for the benefit of those who are not optical specialists."

Wireless world, May 1946, p.168. ⅞ col.

" 'This monograph is an amplified version of a lecture delivered on the 4th of March, 1943 . . . In its present form it intends to be both an introduction to the electron microscope and a critical contribution to its theory' . . . Will be of interest principally to physicists, and those engineers with a background of electronics, who now want an introduction to electron optics with special reference to the problems and limitations of the electron microscope. Further reading is simplified by a very good bibliography of 89 references, dealing with theory, design and performance." *J. McG. S.*

Galloway, D. F. Cutting tool nomenclature. 52p. 1946. Institution of Production Engineers, London, 5s. net.

Mechanical world, April 12, 1946, p.405. ⅝ col.

"Though setting out to deal with the problem . . . of the standardisation and practical application of cutting tool nomenclature, this booklet . . . is incidentally a very able exposition of the principles and methods of tool grinding —meaning the securing of tool form with accuracy. There are American and German standards, and there are various customary and authoritative systems of tool angle measurement. These are described and compared. There are different machines and methods in use for grinding tools, and the respective techniques are explained in relation to the different systems. Further, there is a number of distinctive measuring instruments, and these are similarly treated."

Gerrard, Frank. Meat technology; a practical textbook for student and butcher. 304p. 1945. L. Hill, London, 15s.

Journal of the Royal Sanitary Institute, April 1946, p.144. ⅔ p.

"Though . . . intended primarily for those entering the meat industry, there are many points of interest in it for the veterinary student or for the sanitary inspector engaged in meat inspection . . . A keen young butcher who wishes to take advantage of the facilities for technical training which are now afforded him will find this a valuable textbook in which due regard is paid to both theory and practice."

Gess, Louis, & Irwin, R. D., comp. & ed. Flow meter engineering handbook. Ed.2. 151p. Brown Instrument Co., 4498 Wayne Ave., Philadelphia, $2.50.

American metal market, March 29, 1946, p.6. ⅛ col.

"A complete yet concise treatment of fluid measurement, including related factors, equipment, equations and computations in terms of steam, water, oil, and gas flow, is offered . . . Replete with information for students as well as engineers."

Aviation equipment, April 1946, p.45. ⅛ col.

"The first chapter discusses principles of orifice meter measurement followed by succeeding chapters on the orifice plate and differential connections, design details of Brown flow meters, flow approximation tables, derivations of working formula, working equations, compressibility of gases, relationship between coefficient of discharge, viscosity of fluids and orifice calculations for steam, water, oil and gas flow. The final chapters are given over to a summary of equations and nomenclature, changes for corrections in operating conditions, and volume computations. Thirty-eight figures and 55 tables are included."

Diesel power and Diesel transportation, May 1946, p.608. 11 l.

"The second edition of a very useful handbook. The original material has been considerably expanded and additional technical data has [sic] been included. There are chapters on orifice meter measurement, compressibility of gases, the coefficient of discharge, viscosity of fluids, and orifice calculations for steam, water, oil and gas flow."

Oil weekly, April 29, 1946, p.78. ⅛ col.

Petroleum world, May 1946, p.80. ⅘ col.

Gillett, Albert N. How to evaluate supervisory jobs. 141p. 1945. National Foremen's Inst., Deep River, Conn., $7.50.

Industrial heating, March 1946, p.526. ½ col.

"Seeks to avoid costly mistakes of administration common to the usual trial-and-error method in the selection and payment of supervisory personnel . . . Provides definite, detailed methods for evaluating the job, and appraising the job holder . . . Included are: typical forms to demonstrate actual job evaluation; actual job performance appraisal forms completely filled out; 34 detailed instruction sheets; and 11 illustrated charts."

Printing equipment engineer, April 1946, p.52. ⅔ col.

"Through analytical procedure . . . [this book] seeks to avoid the costly mistakes of administration common to the usual trial-and-error method in the selection and payment of supervisory personnel. Albert N. Gillett directs his work toward an important current problem. With the status of foremen of important concern to management, detailed answers are provided . . . for two key questions: (1) What is the supervisory job worth? and (2) How good is the man occupying the position? The author provides definite and detailed methods for evaluating the job and for appraising the job-holder. A kit of blank forms which are part of this manual make it a practical working tool . . . What makes this manual particularly valuable is the wealth of illustrative material it contains, and the pains taken by the author to make the book thoroughly useful. Included are: Typical forms to demonstrate actual job evaluation; actual job performance appraisal forms completely filled out; 34 detailed instruction sheets; 11 illustrated charts."

Steel processing, April 1946, p.260. ⅗ col.

"Part I explains and describes the Job-Analysis-Rating-Evaluation of Supervision method, which enables management to determine how much the job itself is worth in either hourly rate or salary range. Part II is devoted to a detailed description of a definite plan by which the management can determine the weak and strong points of the individual occupying the supervisory position."

Hall, Ray Ovid. International payments; a science. 124p. 1946. Storage Bookshop, 420 10th St., Washington, D. C., $4.

Journal of accountancy, March 1946, p.248. 9 l.

"Described as 'a new mathematics to improve statistics on international trading,' this monograph explains in text, charts, and worksheets, a new technique called a four-element analysis, by means of which balance-of-payment errors may be localized in one of the four principal accounts to which balances of international payments are commonly condensed—trade, capital, gold, and miscellaneous."

Hardenbergh, William A. Water supply and purification. Ed.2, revised. 488p. 1945. International Textbook, Scranton, Pa., $4.

Engineering news-record, May 16, 1946, p.96. ⅖ col. including another review.

"Brings up-to-date a waterworks compendium designed to meet the needs of the student who wishes to familiarize himself with present day theory and practice as well as the practicing engineer. Incorporating war-born developments in design and operation, the concise, understandable text and illustrative examples effectively show the application of design theory to practice."

Military engineer, May 1946, p.222. ⅓ col.

"The theories underlying the collection, transportation, delivery, and treatment of water are covered quite fully . . . and special efforts have been made to show the applications of these theories to the various problems which engineers engaged on water supply work are likely to encounter. Illustrative problems, designs for particular discussion of equipment and materials are included. During the war, the author served as a Colonel in the Sanitary Corps, and he has incorporated in this revised edition some of the valuable lessons learned, especially with respect to the public health phases of supplying water. There are thirty-one chapters and the material is well-arranged and illustrated."

Haynes, Williams. Southern horizons. 316p. 1946. Van Nostrand, New York, $2.75.

Chemurgic digest, March 15, 1946, p.98. ⅓ col.

"A hopeful, up-to-the-minute and quite comprehensive story of chemurgic and chemical industrial progress in the south. Chemurgy is generously reported in at least half of the sixteen chapters . . . The reader . . . will find for himself an unexcelled account of the many new and some surprising developments that have centered around the southern pine tree and other products of the coastal plain forests. He will find also a forthright story of what has been done in cotton, in vegetable oils and other products; and will note a good many signboards pointing toward tasks to still be undertaken." *Wheeler McMillen.*

Paper trade journal, March 21, 1946, p.51. ⅓ col.

"Covered in this book are interesting chapters on the cotton, vegetable oil, lumber, pulp-paper-by-products, chemurgy, minerals, gas and oil, chemicals, etc. The chapter on the Pine Inventory outlines the present great problem related to the expansion of the pulp and paper industry. The chapter on pulp and paper pays tribute to Charles Herty and the work that he did in his Savannah, Ga., pilot plant in focusing attention on southern pulpwood resources. Considerable attention is given to the future growth prospects through the use of abundant hardwoods and the utilization of pulpmill by-products. Although much of the contents . . . is based on opinions of individuals, talked to by Mr. Haynes the material published may be considered as good observations and reporting."

Heath, Frank, & Hetherington, A. L. Industrial research and development. 375p. Faber, London, 25s.

Metal industry, April 19, 1946, p.314. ⅝ col.

"A book for the layman with a thirst for knowledge rather than for a metallurgist seeking new methods and processes. However, great care has obviously been taken by the authors to secure scientific accuracy, and the number of consultants to whom reference has been made with this end in view is so large that their names fill a complete page of the book . . . Divided into five parts; the first deals with the productive industries of the country, ranging from brewing to welding, and boots and shoes to non-ferrous metals. Part II deals with Research for the Community, Part III with Government Action in Research, and Part IV with Independent Institutions. Part V describes general factors affecting progress. Each industry or service is reviewed in a very readable style . . . The whole work is very well produced in an excellent type on good paper, with first-class illustrations, and a comprehensive index."

Hendry, John W. Manual of time and motion study. 214p. 1946. Pitman, London, 12s. 6d. net.

Aircraft production, May 1946, p.243. ¾ col.

"The author . . . has succeeded in clearly explaining the theory and in addition (though he disclaims such endeavour) has provided a practical text-book for those whose job it is to apply the theory in the assembly shop."

Engineering, April 5, 1946, p.316. ½ col.

"Another new book on time and motion study, and one which can be thoroughly recommended to those who require a convenient summary of accepted practice . . . Breaks no new ground . . . and makes no attempt at a detailed study of machine times, though the author says that here time study can perhaps give its greatest assistance because forecasting is reduced to a mathematical formula. This more precise, yet more complex, branch of time study is not yet established practice, however, and Mr. Hendry devotes his space rather to a well-balanced account of all that the time and motion study engineer should know to fulfil the present-day requirements expected of him."

Machinery (London), April 11, 1946, p.463. ⅔ col.

"The first chapter draws attention to the need for a standard labour measurement, and subsequent chapters deal with: methods of applied incentives; time-study departments and staffs; rating; ways of taking the time study and applying and proving the rate; and allowances and costs. Following chapters discuss such topics as: application to different types of work: the use of the ciné camera: elimination of waste; and motion analysis. The last three chapters deal with: lighting and transport as waste factors; the training of operators, and certain miscellaneous but useful matters of relevant interest. In the chapter on the selection and training of time-study personnel, the author sets forth a 13-week course and suggests equipment for the trainee. As a first text book on the subject, the book has much to commend it, for it contains a number of well-chosen numerical examples and numerous concisely worded notes on the necessary adjuncts of organization and equipment for workshop efficiency."

Mechanical world, May 3, 1946, p.504. 1⅓ col.

Sheet metal industries, April 1946, p.714. 1⅔ col.

"Time and motion study can, of course, be applied to all types of industries, but in this book only the engineering industry is dealt with. Nevertheless, realising that the engineering industry alone offers great scope, one reads on hoping that the spotlight will be turned on to the prolific field in the office, service departments and other functions often referred to as 'overheads.' Unfortunately, although such departments as the toolroom, maintenance, transport, canteen, etc., are mentioned, they are only glossed over, and attention is once again focussed on the assembly and machine operators. The reader is also left with the impression that the author has at some time crossed swords with some militant chief inspector, or at least has been singularly unfortunate in his dealings with inspection departments, because

the 'inspectorate' in his book certainly come in for an overdose of criticism." *B. H. D.*

Henius, Frank. Dictionary of foreign trade. 745p. 1946. Prentice-Hall, New York, $10.

India rubber world, April 1946, p.132. ⅓ col.
"A new and different authoritative guide to foreign trade. Arranged in alphabetical order, it gives concise explanation of terms, usages, practices, and procedures in foreign trade . . . In addition to the alphabetical section there is a section devoted to specimen forms . . . There is a table of abbreviations used in international trade and a handy list of foreign and domestic weights and measures. Its comprehensive scope and authoritative nature should make this dictionary a valuable tool for all engaged in foreign trade or interested in obtaining relevant information."

Marine engineering and shipping review, March 1946, p.168. 10 l.
"An authoritative guide to foreign trade, bringing together a concise explanation of foreign trade terms, usages, practices and procedures. Arranged in alphabetical order for ready reference, the book discusses buying, selling, importing, exporting, packing, shipping, banking, invoicing, customs, insurance and many other subjects associated with organization, management and operation of international trade. Abbreviations used in international trade are listed and fully explained."

New equipment digest, April 1946, p.62. 7 l.
"Covers foreign trade terms, usages, practices and procedures—buying, selling, importing, exporting, packing, shipping, banking, invoicing, customs, insurance and other subjects associated with organization, management and operation of international trade are discussed—abbreviations used are listed and . . . explained fully."

Howard, Albert, & Howard, L. E. Farming and gardening for health or disease. 282p. 1945. Faber, London, 12s. 6d. net.

Tropical agriculture, Feb. 1946, p.24. 1⅔ col.
"Sir Albert Howard has elaborated his ideas on the control of pests and diseases of plants and animals, which he has previously stated in 'An Agricultural Testament.' In brief, his main thesis is that if soils are manured with well made compost, and not with artificials, there will be copious mycorrhizal formation and the crops will be vigorous, fruitful and free from diseases and pests. Moreover, both man and animals, when fed on the produce of fertile soils, manured with compost, will be healthy and resistant to disease . . . Had Sir Albert been content to point out, in a semi-popular book of this nature, the proved value of sound agricultural methods, involving the return to the soil, as compost, of valuable plant and animal wastes, the work would have proved most valuable. Unfortunately, he has seen fit to obscure his main theme by unsound generalisations and extravagant claims . . . Written in a somewhat journalistic style with a tendency to tedious repetition (the reader may become rather tired of 'the earth's green carpet') but if critically read will provide ample food for thought." *R. E. D. Baker.*

Howell, William H. Textbook of physiology. Ed.15, edited by John F. Fulton, and others. 1304p. 1946. Saunders, Philadelphia, $8.

American journal of pharmacy, Jan. 1946, p.34. ⅜ p.
"The services of twenty-four contributors in this revision speak well for its comprehensiveness, since no one person could possibly write authoritatively on all phases of any modern science. The up-to-date character of the work done is well substantiated by reading any one of its many chapters . . . Primarily written for medical students and clinicians but pharmacologists, pharmacists and indeed all others who have need of a modern text on physiology will find it clearly written and with extensive references to the supporting literature. Pharmacists, in particular, will find that a modern text on physiology will simplify the understanding of some of the modern drugs whose action without a knowledge of basic physiology seems hopelessly complex." *L. F. T.*

Irwin, R. D. See Gess, Louis, & Irwin, R. D., comp. and ed.

Johnson, F. Metal working and heat-treatment manual. v.1. 204p. 1946. Elek, London, 17s. 6d. net.

Mechanical world, March 29, 1946, p.362. 2⅛ col.
"Covers a very wide field. Generally speaking, the author has gone about his task in a new and refreshing manner, and has gathered together a vast amount of interesting and sometimes unexpected matter. The greater part is accurate and up-to-date. Modern views on physics as applied to metallurgy are prominent in the theoretical discussions. On the whole, this book can be confidently recommended as a most useful reference work containing a great deal of interesting material not often found in text books . . . A book that is 'different' and will, we do not doubt, appeal alike to the well informed engineer and the professional metallurgist, both of whom will find much that is thought-provoking within its covers. We look forward with keen interest to the appearance of the subsequent volumes." *J. W.*

Sheet metal industries, May 1946, p.920. ⅛ col.

Johnson, R. C. Atomic spectra. 120p. 1946. Methuen, London, 5s. net. (Monographs on physical subjects.)

Electrician, April 26, 1946, p.1113. ⅓ col.
"Well maintains the standard of the other monographs in this series in filling gaps and bringing up to date specific branches of physics, particularly for the general scientific reader and the student. The author confesses to the use of the language of the older version of the quantum theory, feeling that the more recent language and concepts of the New Quantum Theory and its mathematics are likely to introduce difficulties for students in getting ideas which it is here desired to make more clear. The author shows how progressively atoms and molecules are constructed, and the way in which this structure is revealed by suitably excited spectra. The way in which observed spectral lines are linked with complicated electron orbits is then clearly explained, with the various restrictions which are apparently inherent in the fundamental units of matter." *L. E. C. H.*

Journal of scientific instruments, April 1946, p.87. ¼ col.
"The first monograph in this series on 'Spectra' was written sixteen years ago and included

within its covers an elementary account of the theory of the spectra of both atoms and molecules. The enormous advances which have been made since that time in both fields of investigation (especially in the latter) have now made necessary their treatment in separate volumes. The present monograph therefore deals with 'Atomic Spectra' only. The first three chapters and the last one have some of their material in common with the original monograph on 'Spectra'—but the rest is largely new material. Limitations of space have made necessary certain omissions. Thus, for example, the intensities of spectral lines have not been considered, apart from the simple relations of the Burger-Dorgelo rule. Although the New Quantum Theory is now well established, it has not received here more than incidental application to the theory of spectra."

Judge, A. W. Modern petrol engines. 509p. 1946. Chapman & H., London, £1 16s. net.

Journal of the Royal Aeronautical Society, April 1946, p.294. ⅔ p.

"Intended to be for the use of the designer, engineer, draughtsman and student who are mainly concerned with petrol engines . . . A very thorough study of the whole petrol engine field and one which should prove of great value to students and all those engaged in engine development . . . There is an excellent series of over a hundred and fifty references at the end of the book which should prove invaluable to those who wish to inquire still further. The book has been excellently produced under the present difficulties of printing and will be a valuable addition to any library on engines."

South African engineering, April 1946, p.91. ¼ col.

"Almost every type of petrol engine is covered in this book on the internal combustion system. Mr. Judge has again succeeded in writing a practical manual with the result that 'Modern Petrol Engines' is a book of invaluable use to the designer, engineer, draughtsman and student. Basic principles are discussed fully, and practical detailed accounts of individual engines are included. Readers, remembering 'Mr. Judge's previous book an aircraft engines, will realise that this, his most recent work, is well worth studying."

Kovacs, Richard. Electrotherapy and light therapy. Ed.5. 694p. 1945. Lea, Philadelphia, $8.50.

Merck report, April 1946, p.32. ¼ col.

"Offers a concise presentation of all important phases of modern physical medicine with particular emphasis on electronics, electrodiagnosis, ion transfer, and ultraviolet radiation. The work on exercise has been considerably enlarged and a new chapter on hypothermy (refrigeration) has been added, together with newer concepts pertaining to muscle and nerve functions, heliotherapy, and mechanotherapy. This important work written by a well-recognized authority in the field, fills the need of physical therapy technicians, physicians, nurses, and others concerned with the treatment of physical disabilities, especially those resulting from the recent world conflict. The revision has been made at a most propitious time."

Kumlien, L. L. The friendly evergreens. 237p. 1946. D. Hill Nursery Co., Dundee, Ill., $6.

Journal of the New York Botanical Garden, May 1946, p.125. ¼ col.

"A beautifully illustrated volume, worthy of inclusion in the library of everyone interested in the horticultural aspects of coniferous evergreens. The abundant drawings, black-and-white photographs, and colored pictures were well made and are excellently reproduced. And in the chapters are accounts, not only descriptive of most coniferous evergreens in cultivation, but also covering pruning, diseases, insects, landscape uses, soils, fertilizers, transplanting, propagation and other relevant topics." *E. H. Fulling.*

Nature magazine, May 1946, p.227. ¼ col.

"Anyone interested in our coniferous trees, whether professionally, botanically or culturally, should have this fine book. Starting with a discussion of evergreens, the text considers them from many points of view—propagation, breeding, pruning, shipping, care, enemies, place in landscape design, as windbreaks, as hedges, as outdoor living rooms, and, even, poetically. The individual species are then discussed. In addition to a large number of practical illustrations there are many excellent black and white pictures and an unusually large number of colored pictures. The large size of the page permits effective display of the pictures, as does the excellent paper chosen for the book."

Lee, Donovan. Sheet piling, cofferdams, and caissons. 191p. Concrete, London, 10s. net.

Engineer, March 29, 1946, p.294. 12 l.

"Not only treats theoretically and practically the subjects indicated by the title, but also explains why in any particular case a certain design or constructional procedure is adopted . . . Deals with reinforced concrete, timber, and steel sheet piling, the active and passive pressures to which sheet-piled walls are subjected, design and construction of cofferdams, and bridge and other foundations of the cylinder and caisson types. The subject-matter is well supplemented with engravings, drawings, and includes some useful tables and diagrams."

South African mining and engineering journal, March 30, 1946, p.99. ⅓ col.

"The first two chapters on sheet piling and earth pressures deal with British and American practice in the art. The sections of steel sheet piles rolled are given and the choice of most suitable weight of hammer is examined. The various earth pressure theories are discussed in relation to the properties of cohesive soils and granular soils . . . On coffer dams, sixteen principal types of coffer dams are given and illustrations of a number of large-scale constructions are shown . . . The theory and practice of cylinders and caissons, including pneumatic caissons and box caissons as breakwaters, are dealt with in four chapters . . . An extensive reference is given to original works referred to in the text . . . Can be recommended to the engineer and student interested in this subject."

Surveyor, Feb. 22, 1946, p.146. ⅝ col.

"The object of this book is not only to treat theoretically and practically the subjects indicated by the title, but to explain why in any particular case a certain design or constructional procedure is adopted . . . The text is amplified by photographs, working drawings, design curves, and tables; there is a pictorial representation of most of the matters under discussion."

***Lewisohn, Sam A. Human leadership in industry; the challenge of tomorrow. 112p. 1945. Harper, New York, $2.**

Chemical and engineering news, March 25, 1946, p.848. 2⅓ col.

"In this timely book on labor-management relations, the author deplores the tendency to ascribe industrial strife to the capitalistic system, citing examples to show that difficulties between employer and employed are far from being confined to operations under capitalistic ownership." *Norman A. Shepard.*

Mechanical engineering, Feb. 1946, p.170. 4⅙ col.

"The best treatise on the subject which I have read, and it is so interestingly written that I have no hesitation in recommending it to my friends." *A. R. Stevenson, jr.*

Liddell, Donald M., ed. Handbook of nonferrous metallurgy. Ed.2, revised. 2v. v.2: Recovery of the metals. 721p. 1945. McGraw, New York, $7.

Chemical and engineering news, Jan. 25, 1946, p.264. ⅜ col.

"Most of the book has now been rewritten and brought up to date by a staff of 24 specialists, which includes some of the best metallurgical talent in the country. It is to be regretted that some valuable wartime developments particularly in the light metal field have been omitted for security reasons which held at the time the book was written . . . Designed for the student as well as for the practicing metallurgist and engineer." *F. D. DeVaney.*

Mines magazine, Feb. 1946, p.89. ⅛ col.

"Complete in itself, the book covers each of the metals with regard to analysis of physical, chemical and mechanical properties and gives a comprehensive study of the metal's sources, abundance, geographical distribution, principal producers, and output. Fully describes standard practice in the preparation and production of the metal and its alloys and by-products."

Science, May 17, 1946, p.636. 1⅙ col.

"Since publication of the first edition in 1926 this has been one of the best reference works in the field of nonferrous metallurgy. The revised edition, written during the war, has not, in the opinion of this reviewer, done justice to the excellent reputation of the first edition . . . In some cases the references are incomplete, the author and date being omitted. In many chapters, undue attention is given to elementary and irrelevant topics, while the treatment of the actual metallurgical operations is inadequate . . . Many of the illustrations are so poorly chosen that they defeat their purpose, and there has been no attempt at uniformity in the presentation of flow sheets and diagrams . . . For the most part, the book does not indicate the progress, although slight in many cases, which has taken place in nonferrous metallurgy in the last 20 years. In the opinion of this reviewer, the book was assembled too quickly and was very poorly edited." *Ben H. Alexander.*

Lincoln, James F. Lincoln's incentive system. 192p. 1946. McGraw, New York, $2. (McGraw-Hill industrial organization and management series.)

Factory management and maintenance, May 1946, p.288. 10 l.

"Report of the fundamentals and methods of application of an incentive plan which has resulted in an increased output per man per year of more than twelve times . . . Endeavors to demonstrate to management the practicability of the cooperative system, and illustrates step by step the details of its application."

Printers' ink, April 19, 1946, p.62. 11 l.

Saturday review of literature, April 27, 1946, p.30, 32. 3⅓ col. including an illustration.

"Not . . . a mere statement of how to pay for more work. Rather it is a philosophy of incentive management . . . Contains enough of theory also to show how management and men can work together as a team for, by, and of the consumers . . . Portrays the steps necessary to reach unbelievable levels of productivity without speeding up, while giving 'the customers more and more of a better and better product for less and less money'." *Paul Anderson.*

McGrath, Bethel J. Nursing in commerce and industry. 356p. 1946. Commonwealth Fund, New York, $3.

Factory management and maintenance, May 1946, p.290, 292. 6 l.

Food industries, April 1946, p.206. ¼ col.

"A useful book for those in whose care the sick or injured are placed, whether it be a plant dispensary or an industrial hospital . . . Its contents should be . . . familiar to every manufacturing plant's personnel department. The chapters on 'Women in Industry' and 'Communicable Disease Control' should be particularly valuable to the food plant operator."

Public health nursing, May 1946, p.247. ½ col.

Marsh, J. T., & Wood, F. C. Introduction to the chemistry of cellulose. Ed.3, revised. 500p. 1945. Chapman & H., London, 32s.

Chemical age, March 16, 1946, p.286. 1¾ col.

"Opportunity has been taken to incorporate new knowledge here and there and a notable expansion of the text has been made in order to allow a fuller treatment of the celluloses derived from lignified plant materials, such as straw and wood, which received scant treatment in the earlier editions . . . Written by well-known exponents of textile science and . . . expressly intended 'as a guide to the younger chemists who are entering those branches of our great industries which are concerned with cellulose.' It is to textile scientists that the work, as a whole, will appeal most, but Part V on the derivatives of cellulose will be valued by a much wider public . . . There can be nothing but praise for Part V of the work, which deals very effectively with a wide variety of cellulose derivatives. The information, much of which has been obtained by careful examination of patent specifications, is presented in a concise and interesting manner."

Chemical trade journal and chemical engineer, April 12, 1946, p.482. ½ col.

"Despite the difficulty of access of much of the work on cellulose that has been published abroad during the past few years, the authors have incorporated all the outstanding developments and have consolidated the position of their book as one of the primary sources of reference on all questions of cellulose and cellulose-products chemistry. On the non-textile side, in particular, the new edition has been materially strengthened . . . The subject of cellulose is a huge one and the manner in which the authors have managed to present the vital

information within reasonable compass and in readable and attractive form could only have resulted from their own long practical acquaintance with the subject both on the production and research sides."

Journal of the Society of Dyers and Colourists, April 1946, p.118. ⅔ col.

"Previous editions of this well-established text-book contained no mention of paper and wood. Even to the textile chemist this omission was undesirable, and it is satisfactory to find that the book now includes sections concerning the structure of different types of wood and paper pulp and its purification, as well as other smaller insertions relating to these subjects. These extensions of the text constitute the most important difference between the 2nd and 3rd editions." *C. L. Bird.*

Mathews, Arthur Guy. Take it easy; the art of conquering your nerves. 239p. 1945. Sheridan, New York, $2.98.

Hygeia, May 1946, p.390. ⅓ col.

"In twenty-six chapters, the author reviews psychological disturbances as they manifest themselves in symptoms involving the bodily organs and systems. He endeavors to give explanations for the development of symptoms that patients can understand and through a combination of reassurance, the implied 'See, that's all there is to it,' and 'Take it easy,' presumably the reader should be able to help himself." *George J. Mohr.*

Science education, March 1946, p.108. ¼ col.

"Tries to get at the emotional bases of 'nerves' or neuroses and cites many case histories and simple exercises to eliminate or avoid such mental disturbances or frustrations . . . Worth reading even if you have no frustrations or 'nerves' of any kind; if you do, it may be just the book to get you 'back on the beam'." *G. E. D.*

Mills, John. The engineer in society. 196p. 1946. Van Nostrand, New York, $2.50.

Aeronautical engineering review, April 1946, p.87. 11 l.

"A survey of the problems that face the engineer and scientist in a society catering to the business man and financier and to the politician and statesman."

Mining and metallurgy, May 1946, p.278. 1⅛ col.

"In the author's own words 'this isn't a handbook of rules for success either of individuals or of humanity. It is a record of the observations of one who wishes well for his fellowmen and believes that in science and engineering can be found more of the answer to man's problems than man has been willing to admit.' Mr. Mills's observations cover a period of 45 years." *H. R. Glennon.*

Modern industry, May 15, 1946, p.102. ½ col.

"What started, according to the author, as a book of advice to engineers on how to write more clearly for public consumption, has ended as a fascinating dissertation on engineers—what kind of people they are, how they are hired, their salaries, chances for success, relationships with lay executives. He has some very interesting things to say about Ph.D. scientists and scientists who become executives."

Paper trade journal, April 4, 1946, p.42. 11 l.

"A popularly written book about engineers and scientists and their relationship to the economics and politics of the world. In provocative terms, based on long experience with industrial scientists, Mr. Mills advances challenging ideas on the importance and quality of aptitude tests, the salaries of engineers and scientists, woman's part in engineering work, business executives and research, and organization of engineers and scientists. He reveals the behind-the-scenes road blocks that must be passed."

Morrow, Robert Lee. Time study and motion economy. 338p. 1946. Ronald, New York, $5.

Factory management and maintenance, April 1946, p.246. 11 l.

"Presents fundamentals and advanced techniques of time study and motion economy, with procedures for methods improvement. The application of motion economies, time studies, and resulting better methods are illustrated, showing exactly what is done and the results achieved. The ways to study operations, take observations, and compute the data are described, so that these methods may be adopted, without undue expense, in the small plant as well as in larger industries."

Machinery (New York), May 1946, p.244. ¾ col.

"Contains twenty-three chapters dealing with the following subjects: Human Problems of Methods Change; Operation Analysis; Flow Process Charts and Diagrams; Right- and Left-Hand Process Charts; How to Do More Work with Less Effort; Suggestion Plans; Analysis Techniques; Fundamentals and Uses of Time Study; Time-Recording Equipment; Time-Study Procedure; Terms Used in Time Study; Leveling and Rating; Synthetic Leveling; Fatigue in Industry; The Interruption Study; The Ratio-Delay Study; Final Computations; The Standard Data Method; Organizing and Training Time-Study Personnel; How to Secure Employe, Union, and Management Cooperation; Straight-Line Production; Automatic Machine Studies and Work Assignments; Feeds and Speeds for the Cutting of Metals."

New equipment digest, April 1946, p.62. 10 l.

"Covers fundamentals and advanced techniques—methods for studying operations, taking observations and computing data to obtain sound standard times are described fully—recent advances included are better work analysis techniques; improved and simplified time study procedures; sampling methods to determine personal, fatigue and delay allowances; use of standard data to build up synthetic time studies; applications of time study to balance work in conveyorized production; and use of time study as basis for setting tasks and wage rates."

Morton, F. J. Burns. **See Burns Morton, F. J.**

Nelson, Hugh. Dictionary of aeronautical terms. 182p. 1946. Pitman, London, 10s. 6d. net.

Engineering, March 8, 1946, p.235. ⅓ col.

"From the point of view of an aeronautical reader the range of the subjects is very complete, covering engineering, metallurgy, navigation, meteorology, air survey and photography, as well as the normal terminology of the science of aeronautics. It is inevitable that such a book should overlap the British Standards Institu-

tion's *Glossary of Aeronautical Terms*, but the explanations given are useful, in that they are couched in the language of the practical man rather than that of the scientist. This tends to make them verbose, but should make them all the more easily readable by the beginner. The amount of space devoted to each heading is sometimes a little inconsistent . . . It is inevitable, too, that some of the descriptions of the more technical subjects suffer from compression, though the author has made no obvious misstatements in doing this. It is not easy to see exactly what readers he had in mind when writing this book, but it will probably settle many arguments among non-technical aircraft enthusiasts as to the meaning of the terms used in a science which is developing so rapidly that new terms are constantly needed."

Flight, March 28, 1946, p.326. ⅛ col.

"Fulfils a want that has existed for a long time. The compiler notes in his preface that during his thirty-two years' connection with aviation he has collected explanations of various terms with which he has had to deal, and the dictionary is the result of this pursuit. Nevertheless, sundry terms which could well have been included are missing."

Journal of the Royal Aeronautical Society, April 1946, p.296. ⅔ p.

"Group Captain Nelson has turned a blind eye to water-tight definitions, and gives a general explanation of aeronautical terms in use. In that particular way the book is a useful one. But it is packed with terms which are not purely aeronautical, and descriptions which are not those within the compass of the dictionary, useful though they may be from the point of view of mere knowledge . . . The definitions of many terms are far too loose to be of any real value."

Norris, R. C., ed. Principles of electricity. 384p. 1946. Odhams, Hertfordshire, England, 8s. 6d.

Electrician, March 1, 1946, p.534. ½ col.

"Several expert writers on electrical engineering matters, combine, under the able editorship of Mr. R. C. Norris, to provide a comprehensive outline of the theory of electricity and its applications. Although primarily concerned with theory, and therefore a useful book for the electrical student, it is also an excellent guide for the practical man and apprentice engaged on electrical work, being written in a simple and easily assimilated form . . . Illustrated with about 400 line drawings."

Pettingill, Olin Sewall, jr. Laboratory and field manual of ornithology. 248p. Burgess, Minneapolis, $3.50.

Natural history, May 1946, p.201. ⅜ col.

"Doctor Pettingill, gifted teacher at Carleton College, has provided this excellent manual for his students, to guide them whether studying a feather microscopically, learning the classification of birds, or observing the domestic affairs of hummingbirds. The many chapters on bird biology are accompanied by black-and-white illustrations and maps and outline drawings to be filled in by the student. This is a thorough piece of work. The bibliographies are well chosen, and stimulating questions are interspersed in the text. Equipment and necessary reference collections are listed at the outset, so it will not be supposed that this is merely another excursion-book. Under competent direction it will open a wide door into the world of birds, and serve as guide during a long and intensive course of study." *James P. Chapin.*

Phillips Petroleum Company. Hydrofluoric acid alkylation. 365p. The Company, Chemical Products Dept., Bartlesville, Okla., $7.50.

National petroleum news, May 1, 1946, *section 2*, p.R-386. ¾ col.

"A complete compilation of information on the Hydrofluoric Acid alkylation process as based on the operation of three wartime plants, as well as research and development work is now generally available. Previously, due to wartime secrecy requirements, this data was available to only actual HF Alkylation Plant operators. It was presented through a series of 17 restricted reports issued by Phillips Petroleum Co., which became known as the 'Blue Books.' The original policy in presenting the reports was to give complete details of the process, laboratory analyses, equipment operation and so on, rather than to report in generalities. This policy has been followed in the new single volume since it is felt that this type of detailed information is of more value to plant operators than general principles."

Oil and gas journal, May 11, 1946, p.115. ½ col.

"Divided into five general parts: chemistry; design, operation, and operating conditions of alkylation units; alkylation of specific types of hydrocarbons; metallurgy and materials; and safety and general considerations. A great deal of attention is given to the design and use of special equipment for this special purpose, to the unique properties of the HF catalyst, and to the layout of units. Detailed drawings of valves and other special equipment are given. Detailed flow charts are shown along with specific yields, and other data of immense value to the practical engineer and chemist interested in learning the practical aspects of this process."

Pinkerton, J. B. Questions and answers on heating and ventilation. Princes Press, London, 5s. 6d.

Gas world, April 27, 1946, p.463. ⅓ col.

"Mr. Pinkerton sets himself up as a One-Man Brains Trust and answers some hundreds of questions, put by an unknown Question Master, on a wide range of matters relating to heating, ventilation and refrigeration. Providing the questions happen to coincide with queries perplexing technicians, the booklet should prove useful in offering a ready solution to problems as they arise, but since the coincidence factor may not work out quite as happily as this, it seems doubtful if Mr. Pinkerton's book will gain the status of a standard reference work. However, within these limitations, the author has tackled his task with commendable thoroughness."

Ironmonger, April 20, 1946, p.77. ⅔ col. including another review.

"Contains a useful collection of questions and answers under four headings: heating, ventilating, air conditioning and refrigeration. Many of the replies given to the problems raised are instructive, but more than one query could have been omitted without impairing the value of the book. The space thus saved could then have been given to a table of contents that would have been welcomed by the users of what is, in effect, a reference book."

Pope, Clifford H. Snakes of the northeastern United States. 52p. New York Zoological Soc., New York, 50c.

Natural history, May 1946, p.203. ⅜ col.

"Contains a great amount of information on the 23 different snakes known to occur in 'New England, New Jersey, eastern New York and extreme eastern Pennsylvania.' A brief general discussion is presented of the more important and interesting biological aspects of the snakes inhabiting the area treated. This is followed by a simplified 'key' for identification, a detailed account of species, and a summary of snake venom and snake-bite treatment. A short bibliography of a few useful popular books is appended . . . Mr. Pope has done a commendable job in making the text both interesting and informative despite the handicaps of limited space and necessary simplification. Residents of the northeast will find that this pamphlet contains a useful and concise treatment of their native snakes." *J. A. Oliver.*

Pull, Ernest. Boiler-house practice. Ed.2, revised and enlarged. 278p. 1945. Technical Press, Surrey, England, 10s. 6d. net.

Steam engineer, March 1946, p.197. ⅔ col.

"The first edition . . . was extremely well received in 1938, and it is probable that the new production will be even more welcome in view of the additions that the author has made . . . It will be seen that the additions could scarcely be more relevant to the present day, and this book is recommended to boiler owners, engineers and operators of small steam plant, also to students."

Ramsbottom, John. Poisonous fungi. 32p. King Penguin Bks., London, 2s. 6d. net.

Food manufacture, March 1, 1946, p.116. ¾ col.

"To those who by virtue of their financial status . . . or irrepressible desire still retain their addiction to mushrooms, Dr. John Ramsbottom's companion to his first booklet on edible fungi will be of interest and reassurance, especially the latter, for the author hastens to inform his readers that, 'despite popular belief, the number of poisonous fungi is very small, and the plates of this latest publication have had to be eked out with edible fungi' . . . Those wanderers in the countryside in the fungus season would do well to carry Dr. Ramsbottom's booklets, the last one if only to help avoid the deadly *Amanita*. It should also comprise a minor textbook for the 'Nature Study' classes in country schools." *T. C-W.*

Randerson, H. Y. Australian sanitary engineering practice. Ed.3, revised and enlarged. 444p. Angus & R., Sydney, 32s. 6d.

Australasian engineer, March 7, 1946, p.95, 97. 1¾ col.

" 'Undoubtedly destined to become the standard work on this subject for many years to come. In the past, students of the various branches of public health and sanitary science had, perforce, to study from American and English text-books. While, of course, fundamental principles remain unchanged, local conditions in Australia are very definitely different from those in other countries. Consequently, the value of such a work as Australian Sanitary Engineering Practice can be appreciated[']. Mr. Randerson has certainly added a standard text book to the technical libraries of Australia." *A. A.*

Rouse, Hunter. Elementary mechanics of fluids. 376p. 1946. Wiley, New York, $4.

Aeronautical engineering review, April 1946, p.87. ⅓ col.

"Based on the experience of the author and members of the mechanics staff of the University of Iowa in teaching fluid mechanics. The fundamentals of fluid mechanics are thoroughly covered, and many new phases of the subject are discussed. The author explains the development of flow principles from the basic equations of mechanics and carries each principle through to its useful application. Over 400 original problems of a practical nature are included."

Heating and ventilating, May 1946, p.91. ⅓ col.

"The subject is a complex one since it touches on many of the physical sciences—hydraulics, hydrodynamics and even thermodynamics. While the text is not an over-simplification of the subject, the author has made an attempt to hold down the mathematics to that gained by a student in two years of college study. Each chapter ends with a number of problems . . . Written with the thought of providing a good grounding in the basic principles of the subject. Some of the chapters are Fluid Velocity and Acceleration; Pressure Variation in Accelerated Flow; Effects of Gravity on Fluid Motion; Effects of Viscosity on Fluid Motion; Form Resistance; Lift and Propulsion; Surface Tension."

Industry and power, May 1946, p.182. 10 l.

"Combines the logical and systematic development of flow principles with the practical application to problems encountered in various phases of engineering endeavor. The author covers the subject of fluid mechanics from the simplest fundamental of flow to the complex study of the effect of compressibility on fluid motion."

Mines magazine, Feb. 1946, p.89. 12 l.

"With the growing realization of the importance of flow phenomena in almost every field of engineering application, this book gives a thorough grounding in this study . . . Discusses the development of all flow principles of mechanics, striking the right balance between theory and experiment. Besides giving an overall coverage, many new phases of the science are introduced."

Professional engineer, March 1946, p.56. 9 l.

"Contains eleven chapters covering the field of mechanics of fluids . . . Not only a textbook but also a good book for practicing engineers; it contains questions for class discussion, and an up-to-date bibliography may be found at the end of each chapter. A carefully written book which presents the subject in an interesting and lucid manner."

Scherf, David, & **Boyd**, L. J. Clinical electrocardiography. Ed.2. 267p. 1946. Lippincott, Philadelphia, $8.

Industrial medicine, April 1946, p.296. ⅝ col.

"The authors again emphasize the practical applications of electrocardiography and its cor-

relation to clinical findings and therapy. Many sections have been completely revised; others expanded and improved by the addition of new observations of importance to diagnosis and treatment. Sections on some of the rarer phenomena have been added. The stressing of the fact that certain changes in the electrocardiogram which are usually associated with cardiac pathology, may also be found when the heart is normal, is especially to be commended . . . Designed for those who wish to have a thorough understanding of electrocardiography rather than as an aid in the routine interpretation of electrocardiograms." *Nathan Smith Davis.*

Smith, George. Introduction to industrial mycology. Ed.3. 268p. 1946. E. Arnold, London, 20s.

International sugar journal, April 1946, p.108. ½ col.

"First published in 1938, this book is in its third edition, which contains a number of minor alterations and additions, including 11 new illustrations . . . Well adapted to the use of the beginner by reason of the clear way in which the facts of the subject are set forth. As Prof. HAROLD RAISTRICK . . . remarks in the foreword . . . 'It is easy to read, and stimulating to study' . . . Can be well recommended to the sugar factory technologist desiring to be *au fait* with the possibilities of utilizing his molasses, and with the processes that are concerned with his distillery operation."

Smythe, D. M. Careers in personnel work. 253p. 1946. Dutton, New York, $2.75.

Factory management and maintenance, May 1946, p.288. 12 l.

"Written for the guidance of job seekers, this book analyzes and explains what personnel work is, sketches its evolution and expansion, and outlines end results. The steps involved, interviewing and counseling, aptitude and psychological testing, orientation, training, records, research, are discussed, and the qualifications for successful workers in this field are set forth. A supplement considers 'Industrial Relations from the Long-Range Viewpoint'."

Snedecor, George W. Statistical methods; applied to experiments in agriculture and biology. Ed.4. 485p. 1946. Iowa State College Press, Ames, Iowa, $4.50.

Science, March 29, 1946, p.407. 1 col.

"The general order of presentation is the same as before: simple variation and correlation, some large sample theory and more complex cases of chi-square, analysis of variance and covariance, multiple and curvilinear regression, and more complex concepts. There has been considerable minor rearrangement, and new emphasis has been placed on sampling, fiducial limits, estimation, and components of variance. The format is somewhat more attractive than in previous editions . . . The text is definitely more valuable as a reference than earlier editions and seems more difficult to adapt to teaching. In studying and using the text, the scientific worker will feel anew the influence of the modest and unselfish work of the author and his associates, which has already contributed so much to progress." *F. M. Wadley.*

★Stokley, James. Electrons in action. 320p. 1946. Whittlesey House, New York, $3.

American scientist, April 1946, p.268, 270. 2 col.

"This competent and zestful survey by one of the most trustworthy of contemporary 'science writers' is . . . an exceedingly important contribution not only to the diffusion of knowledge but also to human welfare. Written with a keen sense of the dramatic elements in the story, it displays a real flair for elucidation of complex technicalities and an analytical attitude conducive to relatively easy comprehension."

Chemical and engineering news, April 25, 1946, p.1133. ⅔ col.

"Few fields of science or industry have advanced with such breath-taking swiftness as did electronics during the war years. By the same token, only atomic fission—and that too is electronic in a broad sense—was veiled in a deeper secrecy than many vital applications of electronic principles and devices to our military necessities. Mr. Stokley does a highly commendable job of rending that veil and giving his readers a serious look at what has gone on behind it during the war. The sweep of the book's content is surprisingly wide but in spite of that its subject matter is capably handled throughout . . . Like other writers addressing an audience of diverse training and interests, Mr. Stokley sometimes has difficulty in pitching his explanations at an even level, in visualizing his readers and addressing them in terms they will understand. That is true of all books written for 'the layman' and does not here detract unduly from the interest and value of the book." *D. H. Killeffer.*

Food industries, May 1946, p.199. ¼ col.

Radio craft, May 1946, p.588. ½ col.

"Provides excellent material for study by the layman or student who desires a knowledge of the fundamentals of 'everyday electronics.' Fifty-four drawings, sketches and diagrams are used for graphic presentation of the subject matter. These are supplemented by forty-four well-chosen and well-reproduced photographs."

Scientific American, May 1946, p.238. 11 l.

"Beginning with an account of electrons themselves and what science conceives them to be, the author goes on through a chatty discussion of how these electrons are put to work . . . Not a textbook in any sense of the word but . . . clearly written, non-technical, and gives a soundly practical view of what electronics is doing today and of the marvels which it may accomplish in the future." *A. P. P.*

Sky and telescope, May 1946, p.14. 1 col.

"An astronomer sees science in its largest aspects. So when an author like James Stokley, whose background was long specialized on stars and planets, turns to discussing electrons and neutrons and science in general, he writes with wide and deep perception . . . A complete and delightful exposition of all the new marvels of science and the electronic arts." *O. H. Caldwell.*

Stone, W. J. Building geometry. Longmans, New York, 7s. 6d. net.

Surveyor, April 12, 1946, p.286. ½ col.

"'With 430 diagrams,' says the title page; so the student cannot complain that he hasn't been warned. While praising the painstaking

thoroughness of this book, I feel that there is much more in it than the average building operative will ever need to know. I fear that, indeed, he may feel discouraged by the aforesaid diagrams, many of which look unnecessarily forbidding." *C. W. C.*

Stowers, Harvey. Management can be human. 131p. 1946. McGraw, New York, $1.50. (McGraw-Hill industrial organization and management series.)

Factory management and maintenance, May 1946, p.290. 10 l.

"Presents advice for establishing better human relations between management and workers, thereby reducing production costs and raising the quality of work. Actual case histories are used to illustrate conditions which make for harmony, team power, and fine production, or for discord, hatred, and bitterness."

Modern industry, May 15, 1946, p.100, 102. ¼ col.

"Harvey Stowers's recommendations to management men . . . are: circulate; be impartial; lead, don't drive; keep your promises; inform workers in advance; correct them without criticizing; get their point of view; give credit for good work. He points out that this is a time when 'greedy disregard of the individual may set loose a movement from which free enterprise might never recover.' Management can be human, he says, when we realize that our 'workers possess more brains and more good ideas collectively than could be possessed by the most gifted supervisor'."

Sutheim, George M. Introduction to emulsions. 315p. 1946. Chemical Pub., Brooklyn, $4.75.

Industry and power, May 1946, p.181. ¼ col.

"A practical book for the practical man. Starting with the rudiments of emulsions, the text goes on to tell just about everything known on the subject. Well illustrated, the book discusses the principles, properties, methods, preparations, and applications of emulsions in an easy to read—almost informal manner. Two chapters, dealing with the chemical and physical properties and going into the compositions and reactions, explain the advantages of various groups of emulsifying agents. Other chapters take up the subjects of formation, breaking, stability, electrical and optical properties, and manufacture of emulsions. Special features are the extensive bibliography and the large alphabetical list of the various forms of emulsions."

Mines magazine, Feb. 1946, p.89. ¼ col.

"Discusses the principles, properties, methods of preparation and practical applications of emulsions in an easy-to-read, informal manner . . . Special features . . . are the extensive bibliography, selected with utmost care, and the comprehensive alphabetical list of emulsifying agents. The latter is in table form and gives the trade names or commercial names of emulsifying agents in current use, their chemical composition, the group to which they belong, the type of emulsion they help to produce, the pertinent bibliography and the name of the manufacturer."

Tucker, W. J., & Roberts, R. S. Plastics for electrical and radio engineers. 160p. Technical Press, Surrey, England, 12s. net.

Electrician, April 19, 1946, p.1037. 1⅛ col.

"Accomplishes the task which it sets out to do, namely, it explains sufficient about the manufacture and properties of the numerous types of plastic materials and describes their methods of application in the electrical and radio industries . . . Written in a very interesting and attractive style and gives all the essential information to enable the electrical or radio engineer, who uses or contemplates the use of plastics, to understand the whys and wherefores of what he seeks to do . . . Skips round the complicated chemistry of plastics very ably and yet tells sufficient to enable the reader to understand the differences between the various types . . . Supplies a long-felt need and should prove invaluable to many of its readers."

United States Steel Corporation. See **Fisher,** Douglas A.

Wahlenberg, W. G. Longleaf pine. 429p. 1946. Charles Lathrop Pack Forestry Foundation, Washington, D. C., $5.

Chemurgic digest, April 15, 1946, p.130. ¼ col.

"A digest and interpretation of all that has been learned about longleaf pine by one of the leading authorities on silviculture and management of pine types of the South. Longleaf pine has been an important factor in the development of the lumber and timber products industry and in addition the main source of naval stores. It is still of great importance and will continue so provided steps are taken for constructive management. Resources, uses, and properties are carefully presented, followed by sections devoted to regeneration, protection and management. The primary purpose . . . is to aid the timber grower, serving as an invaluable guide to the landowner and timber grower as well as the technical forester." *E. L. L.*

Journal of forestry, April 1946, p.301. 3½ col.

"Wahlenberg treats the subject in five major subdivisions: Resources, uses, and properties; Ecology; Regeneration; Protection; and Management. The organization and treatment, and the crisp English used, all make for easy reading and understanding. The text is lightened and supplemented with a large number of maps, charts, diagrams, and good photographs. The appendixes contain added information of great value to the working forester, and the bibliography of 637 references offers as complete a list of significant writing on longleaf pine as has been published. Not the least interesting feature . . . is the large number of footnotes." *Inman F. Eldredge.*

Southern lumberman, April 1, 1946, p.46. ½ col.

"One of the most complete studies on any timber tree species ever published in America and is the result of over ten years' study by Mr. Wahlenberg, forester of the Southern Forest Experiment Station . . . W. G. Wahlenberg has a special background for writing his comprehesive [sic] work on longleaf pine. He is one of the leading authorities in the United States on the silviculture and management of the principal pine types of the South."

Walker, James, & Taylor, C. C. Simplified punch and diemaking. 235p. 1946. Macmillan, New York, $5.

Aeronautical engineering review, April 1946, p.87. ⅔ col.

"Offered for those requiring knowledge concerning the construction and operation of punches and dies . . . The first chapter is an introduction to the broad field of diemaking and contains sufficient general information to prepare the beginner for the diemaking instruction given later. Successive chapters deal with dies of increasing complexity until all commonly used types have been explained. It has been the aim of the authors to avoid obsolete processes, designs, and methods and to confine themselves exclusively to the design, use, and adaptation of the many sets of tools illustrated."

Iron and steel engineer, March 1946, p.120. 10 l.

"Each step in the design, construction and operation of dies and punches is fully explained in the book and thus provides a comprehensive reference manual for tool engineers and others engaged in punch and die work, as well as a complete text for those who are in punch and die making. Much information on new materials and methods is included."

Machinery (New York), May 1946, p.244. ⅛ col.

"Each step in the design, construction, and operation of dies and punches is clearly explained . . . The subject matter is such as to provide a comprehensive reference for tool engineers and others engaged in punch and die work, as well as a complete text for those learning punch- and die-making. All the important types of dies and punches in use today are covered, and detailed information on specifications, materials, methods of construction, and uses is included."

Tool engineer, March 1946, p.64. ¼ col.

"A profusely illustrated . . . book dealing with the step-by-step development of design, construction and operation of punches and dies. The authors are experienced tool and die makers . . . Beginning with an introductory chapter that outlines fundamentals of die making for the novice, and also serves as a refresher for experienced designers and draftsmen, the book progresses from the simpler round blanking dies to what-to-do and how-to-do-it in dealing with dies of increasing complexity until all well known types have been discussed."

Western machinery and steel world, April 1946, p.114. ⅖ col.

"Covers design, construction and operation of the important types of dies and punches used today. The subject is presented in logical sequence, beginning with general background material for the inexperienced and proceeding from plain round blanking dies through sectional dies, compound blank and pierce dies, progressive dies, piercing and trimming dies, bending and forming dies, and then to such compound arrangements as combination blanking and drawing dies. The authors adhere to fundamental principles, avoiding details of special applications and adaptations. The work is clear and well illustrated with photographs, diagrams and typical die-making problems. A textbook for the beginner and a handy reference for the tool engineer."

Westman, Harold P., and others, ed. Radio pioneers. 1945. Prof. G. B. Hoadley, Brooklyn Polytechnic Inst., Brooklyn, $1.

Electronic industries, May 1946, p.160. 7 l.

"A souvenir book, giving a historical review of the important advances in the radio art from the beginning up to the early days of broadcasting and the contributions of the early experimenters in this. Excellent for reference use."

Williams, Henry Lionel. Fundamentals of aviation. 282p. 1946. Blakiston, Philadelphia, $1. (New home library.)

Aero digest, April 1946, p.67. 8 l.

"A text prepared under supervision of the Casey Jones Academy of Aeronautics. Provides excellent background material, and is more profoundly scientific in its explanations than most other books addressed so generally to the aviation initiate."

Aeronautical engineering review, April 1946, p.85. ½ col.

"The basic factors of air transportation are presented in language that can be easily understood by the student flier and others interested in aviation and its future. The operation and principles governing the flight of both lighter-than-air and heavier-than-air craft are explained. Beginning with man's earliest attempts at the conquest of the air, the author traces the development of the airship, the airplane, and the helicopter to the present day; weighs the problems that still await solution; and explores the future possibilities of aviation. The mechanics of flight, as well as the construction of the air frame, power plant, and accessories, is simply explained . . . Gives the essence of what has been learned from two wars about airplane design, construction, and operation; navigation systems; and meteorology . . . Also supplies information about flight rules and safety measures governing commercial and private flying and gives some insight into airline operation and maintenance methods. The future of transoceanic air freight and travel is discussed."

Aviation, April 1946, p.149. 7 l.

"Comprehensive, clearly written presentation of the basic factors of air transportation and private flying. Beginning with man's conquest of the air, the author traces development of the airplane to the present day, weighs problems that still await solution, and explores future possibilities."

Flying, June 1946, p.66. ⅝ col.

"Here's a chance to add a good book to one's collection at reasonable cost. This book states in so many words what its thesis—one at which other writers have dared only to hint—is that *no one man invented the airplane* . . . Written in easy, comfortable style, it retains high reader interest through use of 146 black-and-white cuts. A minor criticism of its styling might cite the lack of sub-titles, which often causes the reader to grope for continuity . . . What is best about this work is that it does cover the fundamentals of aviation—and it does it in a manner that is both interesting and readable. Aviation history, mechanics of flight, technique of flight, effects of flight on the body, engines, navigation, and the airlines—Mr. Williams has compiled facts about all these into a valuable source book that is also a readable treatise for diversion and entertainment." *John R. Hoyt.*

Yates, Raymond F. Fun with electronics. 159p. 1945. Appleton, New York, $2.75.

Science education, March 1946, p.107. ¼ col.

"Electronics has been called the science of today and tomorrow. And in recent years and during the war so much has been heard about the role [sic] of electrons in shapening present day science. Not many writers have Mr. Yates

ability to take a technical subject and write it appealingly for boys and girls. But in *Fun with Electronics* he does just that. Many experiments with electricity are described and illustrated with 78 diagrams and 30 photographs . . . A fine book for the science library, the science club, the science teacher, and any teen-ager interested in electricity." *G. B. K.*

Young, H. P. Electric power system control. Ed.2, revised. 369p. 1946. Chapman & H., London, 25s. (Monographs on electrical engineering series.)

Electrical review, April 26, 1946, p.652. ¾ col.

"In it will be found a clear and ordered treatment of a branch of electrical technology information about which has, till recently, been largely confined to original papers . . . More than a judicious compilation, for the author has used his skill in exposition to gather a number of loose threads and to put forward a coherent theory of his subject that will be readily comprehensible by engineers and students with a fair knowledge of mathematics. Perhaps mathematical symbolism has been used rather more than is essential . . . One of the best of the . . . series . . . and . . . can be recommended without reserve to advanced students and to electrical power engineers as a sound and authoritative treatise." *G. W. S.*

Electrician, April 26, 1946, p.1113. 1⅛ col.

"Divided into eleven chapters dealing with: Parallel Operation of Generators; Voltage Control of A.C. Generators; Further Tests on Automatic Regulators; Automatic Synchronising of A.C. Generators; Control of Power by Reactance; Circuit Breakers and Circuit Interruption; Air-Blast Circuit Breakers; Power Station Switchgear Arrangements and Short-circuit Calculation; Interconnection of Power Stations; Apparatus for Interconnector Control; Principles of Automatic Supervisory Control. The author has taken the opportunity of correcting a number of errors which appeared in the 1st Edition, and has also included a new chapter dealing with air-blast circuit breakers . . . A useful bibliography is appended, but in certain sections it could be added to with advantage." *T. H. C.*

Power & works engineer, May 1946, p.123. 12 l.

"The author has added, here and there, to his first edition without materially altering it except by the inclusion of a new chapter on air-blast circuit-breakers. This chapter is excellent in every way but we should have thought it too detailed to be justified in a book ostensibly confined to 'system control.' It is, however, similar in scope to the other chapters, so that this mild criticism is really in respect of the general treatment; the title . . . suggests, we think, less of description than of principles. The book does, of course, include adequate treatment of principles and is recognised as pre-eminent in this direction."

ZoBell, Claude E. Marine microbiology. 240p. 1946. Chronica Botanica, Waltham, Mass., $5.

American scientist, April 1946, p.274. ⅝ col.

"This concise and broadly inclusive monograph on hydrobacteriology will prove of interest and value to a wide variety of scientists . . . For the first time, much information hitherto scattered throughout numerous journals and generally inaccessible publications is brought together in a well-organized treatise. Conditions in the sea constitute the central theme, but frequent reference is made to observations in inland bodies of water, fresh as well as saline. Special emphasis is placed upon the methods of studying marine bacteria, their effects on environmental conditions, and factors influencing their activities in water and bottom deposits. Twenty-two pages of bibliographic references provide effective guidance for further study of special phases of the subject."

Scientific monthly, April 1946, p.vi. ⅓ col.

"Claude E. ZoBell . . . has summarized and correlated the extensive literature on the subject of hydrobiology, with particular reference to the importance of bacteria and allied microorganisms as biochemical, geological, and hydrobiological agents. The chief emphasis is on sea organisms, but frequent observations were made in inland bodies of water, owing to the possibility that there may be common elements in the evolutionary development of kindred types. The discussion of the practical aspects of microbiology, such as the collection and analysis of water and mud samples, will be of value. The bibliographical sections do not contain comprehensive listings, but serve rather as a directive to stimulate students to further study. A useful author index follows the bibliography." *T. J. C.*

PITMAN PUBLISHING CORPORATION
Scientific and Technical Publications
2 West 45th St., New York 19, N. Y.

TECHNICAL AND SCIENTIFIC BOOKS
For American Chemical Society Monographs and other REINHOLD books, send for our new Catalog, *"Let's Look It Up".*
Reinhold Publishing Corporation
330 West 42nd Street, New York 18, N. Y.

JOHN WILEY & SONS, Inc.
(*Established* 1807)
Scientific and Technical Books
440 Fourth Avenue New York City

G. E. STECHERT & CO.
(Alfred Hafner)
31 E. 10th St. New York, N. Y.
Books, Periodicals, Subscriptions
New, Second-Hand, Out-of-Print